13.1 DEFINE THE ADJUSTMENT FORMULAS AND/OR FACTORS

Introduction

Values for data items can be adjusted using either a formula or a factor. If the adjusted value of an item will be calculated using a formula, you must define the formula in the Derived module. If the adjusted value of an item is to be calculated using a factor, a separate parameter file containing the adjustment factors must be created and stored in PARMLIB.ADJFCTRS. Surveys that adjust data may use only formulas, only factors, or a combination of both.

The table below illustrates the differences between these two definition types:

Definition Type	Characteristics
Derived	– Used to calculate the value of a derived item. – Definitions stored in PARMLIB.DERIVED. – See description in Chapter 7.
Adjusted	– Used to calculate the "adjusted" version of an item. – The item may or may not be a derived item. – If a formula (rather than a simple adjustment factor) will be used to calculate the adjusted value, the derived module must be used to define the formula. – If derived module is used to calculate adjusted value, the adjustment flag in the Item Data Dictionary must be set to 'D' (ADJFLG = 'D'). – Definitions defined in the derived module are stored in PARMLIB.ADERIVED.

13.1.1 ADJUST ITEM DATA USING A FORMULA

If you will use a *formula* to calculate an adjusted item value, you must use the Derived module and select the "Adjusted" option from the main menu. The following example illustrates using a formula to calculate the value of an adjusted item:

Given this scenario, you would define a formula for calculating the adjusted value of Item C (using the derived module), by entering the following:

$$\underline{a}ITEMC\underline{00} = \underline{a}ITEMA\underline{00} + \underline{a}ITEMB\underline{00}$$

In the above formula, the prefix 'a' indicates that the item in the formula refers to the *adjusted* version of the data (as opposed to the edited, weighted, or reported versions of the data). 'ITEMA', 'ITEMB', and 'ITEMC' refer to the actual item names as they are defined in the Item Data Dictionary (e.g., SALES, CSAL, 23444, 10003). The suffix '00' represents the statistical period of data being used in the formula (in this case, the *current* stat period). To specify data from a prior stat period, you would use a suffix of '01' (one stat period back), '02' (two stat periods back), etc.

To enter an adjustment formula, you must use the "Adjusted Option" on the Derived Item Definitions main menu.

Accessing the Screen

● Click on the SURVEY SPECIFICATIONS button from the StEPS Main Menu.

● Click on DERIVED ITEM DEFINITIONS button from the Survey Specifications Menu.

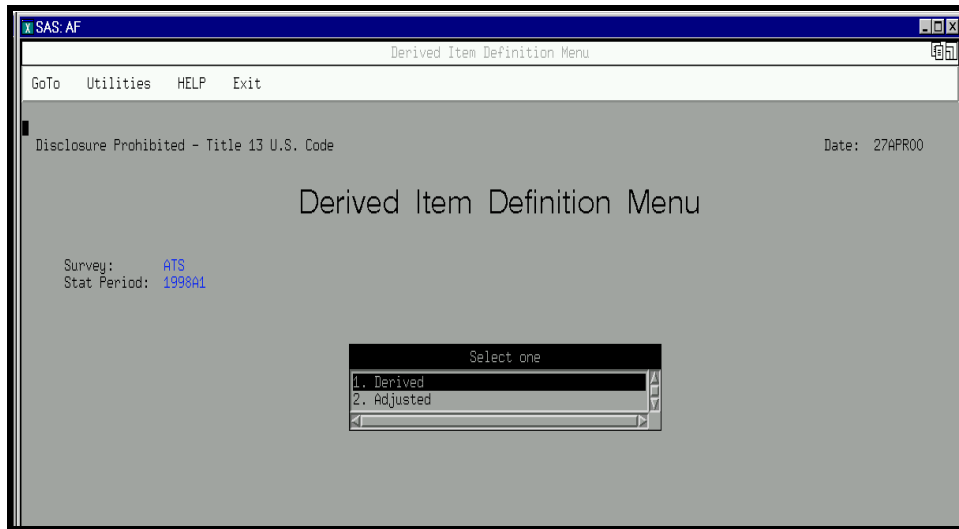● Select Option 1 - "Derived Item Definitions" to display the following:

Figure 13.1.1   Derived Item Definition Menu showing "Adjusted" option

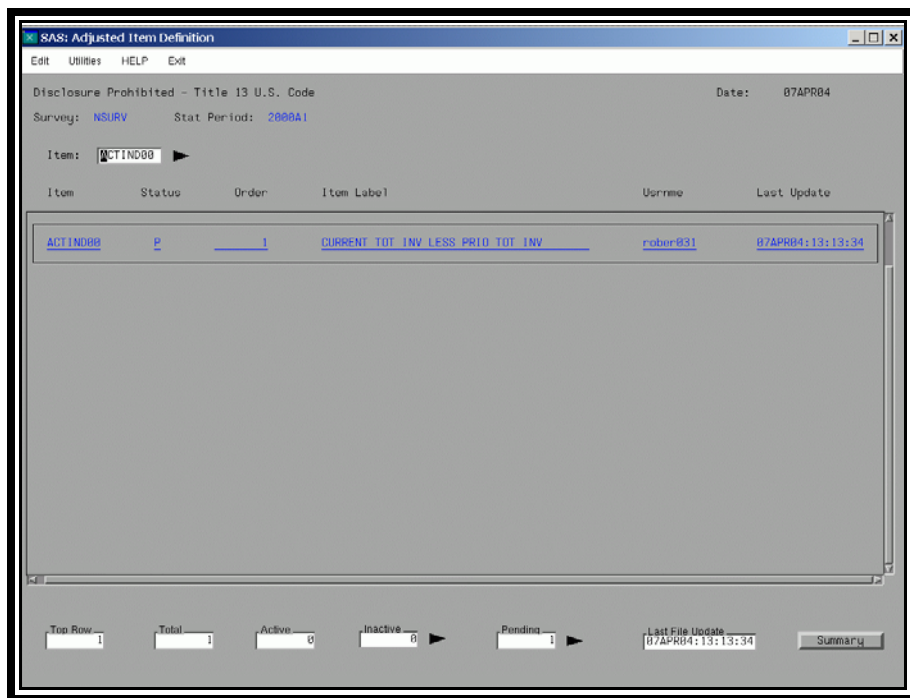● Click on "2. Adjusted." The screen shown as Figure 13.1.2 will appear:

Figure 13.1.2 Adjusted Items Definition screen

To add a formula, select the adjusted item from the picklist (or enter it in the box), then click on the EDIT pmenu and select the "Add Definition" option. When you create a formula using the "Adjusted" option, be sure to enter a prefix of 'a' for the item in the definition screen, to indicate that you are entering a formula to calculate the *adjusted* version of the item. Otherwise, you follow the same procedures as you would for adding a derived definition. See section 7.1 for detailed instructions on defining, modifying and deleting formulas.

13.1.2 ADJUST ITEM DATA USING A FACTOR

To use a *factor* to calculate the value of an adjusted item, you must create a parameter file to contain the factor to use for each item. Contact your production programmer to assist you with the creation of this file.

In addition, you must:

1. Set the ADJFLG in the Item Data Dictionary to 'Y'.

2. Determine the adjustment types needed and enter these in the ADJTYPE field in the Item Data Dictionary.

    NOTE: For each item where ADJFLG = 'Y', an ADJTYPE <u>must</u> be specified.

The adjustment type (ADJTYPE) specified in the Item Data Dictionary identifies the set of criteria to use to look up a factor for a particular item. The value for ADJTYPE corresponds to a SOURCE entry in SPRGLIB.ARSOURCE. This code is used by the adjust program in determining which factor to use from the parameter file in order to calculate the adjusted version of a specific item. It was designed for surveys that use different criteria to assign adjustment factors to specific items. (For example, the Annual Trade Survey assigns one factor based on "current inventory date" and another factor based on "prior inventory date." For this survey, there are 2 different adjustment types: CKEY and PKEY. Each is associated with a separate SOURCE program that tells the adjust program what factor to retrieve for calculating the adjusted value of the item.)

Production programmers are responsible for writing the code associated with the adjustment types. For more detailed information regarding the use of adjustment types, see the StEPS Systems Manual.

P-Menus

Derived/Adjust Item Definition Menu

P-Menu	Options	Function
GOTO	Run Derived Items	Accesses the Derived Batch Run screen where you may run the derived item program using the definitions in PARMLIB.DERIVED (or PARMLIB.ADERIVED) to update the values of the derived items in the item file . Cannot be used to run adjustment factors.
UTILITIES	Generate Code	Updates the SAS code for the derived program using the definitions defined in PARMLIB.DERIVED (or PARMLIB.ADERIVED). Cannot be used for adjustment factors
	View Code	Allows you to view the SAS code for the adjustment program
	View Definition Summary	Accesses the "Summary of Derived Item Definitions" screen (See section 7.2.3 for more information on this screen)
	Print ➤ Print Definitions Print Code	Allows you to print the adjustment definitions. Allows you to print the SAS code for the adjustment definitions.
HELP	WhoamI (F7)	Displays user default and systems information
EXIT	StEPS Main Menu (Home) Exit (F3)	Return to StEPS Main Menu Exit to previous screen

Adjusted Item Definition Screen

P-Menu	Options	Function
EDIT	Add Definition	Adds derived definition to the parameter file (PARMLIB.DERIVED or PARMLIB.ADERIVED)
	Delete Definition (F6)	Deletes an existing item definition from the adjustment parameter file
	Update Definition (F2)	Updates the adjustment parameter file with any changes you have made to the definitions

P-Menu	Options	Function
UTILITIES	Next Page (PgDwn)	Displays the next screen of adjusted item definitions
	Previous Page (PgDwn)	Displays the previous screen of adjusted item definitions
	Top	Displays the first adjusted item definition
	Bottom	Displays the last adjusted item definition
	Print	Accesses the adjusted item print screen
	Update Label	Updates the 'label' in the adjusted item definition file using the 'label' defined in the Item Data Dictionary
HELP	WhoamI (F7)	Displays user default and systems information
Exit	StEPS Main Menu (Home)	Return to StEPS Main Menu
	Exit (F3)	Exit to previous screen

Adjusted Item Update Screen

P-Menu	Options	Function
EDIT	Update Definition (F2)	Updates the derived item definition in the derived item parameter file (PARMLIB.DERIVED or PARMLIB.ADERIVED)
	Cancel	Cancels any changes you have made to the adjusted item definition; changes are not applied to the adjusted item parameter file
UTILITIES	Print	Sends a copy of the adjusted item definition currently displayed on the screen to your PC printer.
HELP	WhoamI (F7)	Displays user default and systems information
Exit	StEPS Main Menu (Home)	Return to StEPS Main Menu
	Exit (F3)	Exit to previous screen